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Patent Claims

INS A1

1. A method for computer-aided determination of a movement which underlies a digitized image,
- in which the digitized image contains pixels which are grouped into image blocks,
- in which a movement estimation is carried out for each image block, as a result of which a movement vector is determined for each image block, which movement vector is assigned to the respective image block,
- in which movement vectors are selected which are assigned to an image block which is situated in a prescribed region of the digitized image,
- in which parameters of a movement model are determined from the selected movement vectors, and
- in which the movement of the digitized image is described by the determined movement model.

2. The method as claimed in claim 1, in which the prescribed region is formed by image blocks which

are situated at a prescribed first distance from an edge of the digitized image.

3. The method as claimed in claim 2, in which the prescribed region is formed by image blocks which are situated at a prescribed second distance from the middle of the digitized image.

4. The method as claimed in one of claims 1 to 3, in which the prescribed region is varied in an iterative method.

5. The method as claimed in one of claims 1 to 4, in which the movement estimation is performed by a blockwise comparison of the image block in the digitized image with an image block in a temporally preceding image which, inside a search space of prescribed shape and size, is displaced by a prescribed value relative to the image block in the digitized image.

6. The method as claimed in one of claims 1 to 5, in which the determined movement is compensated.

7. The method as claimed in claim 6, used in a mobile arrangement whose movement is compensated with the aid of the method.

8. The method as claimed in claim 7, in which the arrangement is a camera.

9. The method as claimed in claim 8, in which the arrangement is a camera which is integrated in a mobile communication device.

10. An arrangement for determining a moment which underlies a digitized image, having a processor

which is set up in such a way that the following steps can be carried out:
- the digitized image contains pixels which are grouped into image blocks,
- a movement estimation is carried out for each image block, as a result of which a movement vector is determined for each image block, which movement vector is assigned to the respective image block,
- movement vectors are selected which are assigned to an image block which is situated in a prescribed region of the digitized image,
- parameters of a movement model are determined from the selected movement vectors, and
- the movement of the digitized image is described by the determined movement model.

11. The arrangement as claimed in claim 10, in which the processor is set up in such a way that the prescribed region is formed by image blocks which are situated at a prescribed first distance from an edge of the digitized image.

12. The arrangement as claimed in Claim 11, in which the processor is set up in such a way that the prescribed region is formed by image blocks which are situated at a prescribed second distance from the middle of the digitized image.

13. The arrangement as claimed in one of claims 10 to 12, in which the processor is set up in such a way that the prescribed region is varied in an iterative method.

14. The arrangement as claimed in one of claims 10 to 13, in which the processor is set up in such a way that the movement estimation is performed by a blockwise comparison of the image block in the

digitized image with an image block in a temporally preceding image which, inside a search space of prescribed shape and size, is displaced by a prescribed value relative to the image block in the digitized image.

15. The arrangement as claimed in one of claims 10 to 14, in which the processor is set up in such a way that the determined movement is compensated.

16. The arrangement as claimed in claim 15, used in a mobile device.

17. The arrangement as claimed in claim 16, used in a camera.

18. The arrangement as claimed in claim 17, used in a communication unit with a camera.